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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPT.
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER
WEIDNER, TIMOTHY J

ART UNIT	PAPER NUMBER
2419	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>28 April 2009</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1-20</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All   b) ☐ Some * c) ☐ None of:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____.
      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 28, 2009 has been entered.

Response to Amendment

Claims 1, 6, and 10 are currently amended.

Claims 1-20 are pending.

Response to Arguments

In response to applicant's arguments/amendments filed April 28, 2009:

Regarding rejections made under 35 USC 103, arguments state the Shaffer reference may not "define a phase in a transmission cycle based on a receive time of the end of a telegram or data packet." Examiner respectfully disagrees. Shaffer teaches network devices that extend a backoff time, before sending a packet, to the end of a current transmission on a bus. Extension of a backoff time may be treated as characterizing a transmission phase based on a receive time of the end of a packet because detecting activity on the bus may be treated as receiving the packet. Therefore, when a device determines the end time of activity on a bus, it determines

receiving the end of the packet (columns 4-5, lines 59-10). The rejections are

maintained.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Shaffer et al. (US 5960001) in view of Lee et al. (US 6611886 B1).

Regarding claims 1, 6, and 10, Shaffer teaches a method, system, and usable

portion of a switchable data network for transmitting data in a switchable data network,

comprising users having mechanisms for sending, receiving, and/or forwarding data

telegrams (figure 2, item 112; column 5, lines 54-67), during cyclical transmission

intervals (column 3, lines 25-26; particular periodic rate) wherein the telegrams having a

beginning and an end (column 4, lines 5-10; "beginning … fixed length") and wherein

the telegrams are assigned priorities (column 2, lines 11-16; "isochronous … non-

isochronous"), wherein a first usable portion is used during a first phase for sending

data telegrams assigned a first priority from a first user to a second user (column 4,

lines 59-59; "isochronous transmissions are occurring"), with the first phase having a

pre-defined receive time for receipt of the end of the respective data telegram assigned

the first priority at the second user (columns 4-5, lines 59-10; "isochronous transmission

on the bus has just terminated … backoff window will be automatically extended to the

end of the isochronous transmission … backoff period may be added to the end of the

isochronous transmission … reset upon expiration of the isochronous window").

However, Shaffer may not explicitly teach sending multiple data telegrams in a phase. Lee, which is in the same field of endeavor, teaches multiple packets sent in a single phase (column 9, lines 33-34) for the purpose of for the purpose of utilizing residual bandwidth (column 4, lines 33-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made send multiple data telegrams in a phase to utilize residual bandwidth.

Regarding claims 2 and 7, Shaffer teaches the first users are provided during a second phase after the end of the first phase for exclusively sending data telegrams (column 4, lines 49-67; column 5, lines 1-10) assigned a second priority (column 2, lines 11-16) to the second users.

Regarding claims 3, 8, 11, and 17, Shaffer teaches a first phase and a second phase (column 4, lines 49-67; column 5, lines 1-10), but may not explicitly teach the first users are provided during a third phase after the end of the second phase for sending data telegrams assigned any priority to the second users.

Lee teaches a third priority phase after a first and second phase (column 9, lines 31-33; isochronous, variable isochronous, and asynchronous phases) for the purpose of utilizing residual bandwidth (column 4, lines 33-37). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have a third phase after a first and second phase to utilize residual bandwidth.

Regarding claims 4 and 12, Shaffer teaches the first phase is cyclically repeated (column 3, lines 14-26), the first phase having an end time based on a defined receive time of the end of a data telegram by a second user (columns 4-5, lines 59-10;

"isochronous transmission on the bus has just terminated … backoff window will be
automatically extended to the end of the isochronous transmission … backoff period
may be added to the end of the isochronous transmission … reset upon expiration of
the isochronous window").

Regarding claims 5, 9, 14-16, and 18, Shaffer teaches the system for transmitting
realtime data is provided in the switchable data network, with the realtime data
telegrams being assigned the first priority (column 1, lines 50-59; column 2, lines 11-
16).

Regarding claim 13, Shaffer teaches the first phase is cyclically repeated
(column 3, lines 14-26).

Regarding claim 19, Schaffer teaches the end time of the first phase is based on
the length of the data telegram (columns 3 and 4, lines 1-12 and 5-10 respectively).

Claims 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaffer
et al. (US 5960001) in view of Lee et al. (US 6611886 B1) as applied to claim 19 above,
and further in view of Peterson (US 6301262).

Regarding claim 20, Shaffer and Lee may not explicitly teach the end time is
based on a routing time so that the end time differs among users. Peterson, which is in
the same field of endeavor, teaches transmission cycles with an end time based on a
routing time so that the end time differs among users (column 8, lines 29-42) for the
purpose of solving the problem of propagation time due to distance between
communications resources (column 2, lines 6-18). It would have been obvious to one of
ordinary skill in the art at the time the invention was made to have wherein for at least

one cycle the end time of the first phase for each user is also based on routing time to

each user receiving a data telegram of the first priority so that the end time of the first

phase in the at least one cycle differs among users receiving data telegrams based on

routing times to account for the problem of propagation time due to distance between

communications resources.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Timothy J. Weidner whose telephone number is (571)

270-1825. The examiner can normally be reached on Monday - Friday, 8:00 AM - 5:00

PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz R. Sheikh can be reached on (571) 272-3795. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Timothy J Weidner/
Examiner, Art Unit 2419

/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art Unit 2419